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IN THE CLAIMS

Please amend the claims as follows.

1. (Currently amended) A geminivirus silencing vector comprising a geminivirus genome comprising:
the geminivirus AL1, AL2 and AL3 coding sequences, and
heterologous DNA, said heterologous DNA comprising at least a fragment of a gene endogenous to a plant ~~that occurs naturally in the plant genome, wherein the fragment~~
is of a size sufficient to induce silencing, and wherein said heterologous DNA is constitutively expressed and said AL1, AL2 and AL3 coding sequences are bidirectionally transcribed from said geminivirus silencing vector, ~~and~~
~~wherein said geminivirus silencing vector silences expression of the~~
~~endogenous plant gene upon introduction into a plant cell.~~
2. (Currently amended) ~~A~~The vector according to claim 1, wherein said heterologous DNA replaces a segment of the coding sequence for the geminivirus coat protein.
3. Canceled
4. (Currently amended) ~~A~~The vector according to claim 1, wherein said heterologous DNA is operably associated with a promoter that is associated with said endogenous plant gene.
5. (Currently amended) ~~A~~The vector according to claim 1, wherein said heterologous DNA is operably associated with the geminivirus coat protein promoter.

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6. (Currently amended) ~~A~~The vector according to claim 1, wherein said heterologous DNA is in the sense orientation.

7-10. Canceled

11. (Previously presented) The vector of claim 1, wherein expression of said heterologous DNA modifies a plant phenotypic trait.

12. (Currently amended) A DNA construct comprising a geminivirus genome, wherein the DNA encoding the geminivirus coat protein has been replaced in part or in total with heterologous DNA comprising at least a fragment of an endogenous plant gene ~~that occurs naturally in the plant genome and wherein the~~ fragment is of a size sufficient to induce silencing.

13. (Currently amended) ~~A~~The DNA construct according to claim 12, wherein said heterologous DNA is operably associated with a promoter.

14. (Currently amended) ~~A~~The DNA construct according to claim 13, wherein said promoter is the promoter that is associated with said endogenous plant gene.

15. (Currently amended) ~~A~~The DNA construct according to claim 13, wherein said promoter is the geminivirus coat protein promoter.

16. (Currently amended) ~~A~~The DNA construct according to claim 12, wherein said heterologous DNA is in the sense orientation.

17-20. Canceled.

21. (Previously presented) The DNA construct of claim 12, wherein expression of said heterologous DNA modifies an observable plant phenotypic trait.

22-30. Canceled.

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31. (Previously presented) A plant cell comprising a geminivirus silencing vector according to claim 1.

32. (Previously presented) A plant cell comprising a plurality of cells according to claim 31.

33-37. Canceled.

38. (Currently amended) A geminivirus silencing vector comprising a geminivirus genome which contains a heterologous DNA, said heterologous DNA comprising at least a fragment of a coding region of a gene endogenous to a plant, wherein the fragment is of a size sufficient to induce silencing and wherein the heterologous DNA sequence is inserted into the silencing vector in the antisense orientation, ~~and wherein said geminivirus silencing vector silences expression of the endogenous plant gene upon introduction into a plant cell.~~

39. (Previously presented) The vector according to claim 38, wherein said gene endogenous to a plant occurs naturally in the plant genome.

40. (Currently amended) A DNA construct comprising a geminivirus genome, wherein the DNA encoding the geminivirus coat protein has been replaced in part or in total with heterologous DNA comprising at least a fragment of a coding region of a gene endogenous to a plant, wherein the fragment is of a size sufficient to induce silencing, and wherein the heterologous DNA sequence is inserted into the geminivirus genome in the antisense orientation.

41. (Previously presented) The vector according to claim 40, wherein said gene endogenous to a plant occurs naturally in the plant genome.

42. (Currently amended) A geminivirus silencing vector comprising a Tomato Golden Mosaic Virus (TGMV) genome which contains heterologous DNA,

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said heterologous DNA comprising at least a fragment of a gene endogenous to a plant, wherein the fragment is of a size sufficient to induce silencing ~~said geminivirus silencing vector silences expression of the endogenous plant gene upon introduction into a plant cell.~~

43. (Previously presented) The vector according to claim 42, wherein said gene endogenous to a plant occurs naturally in the plant genome.

44. (Currently amended) A geminivirus silencing vector comprising an African Cassava Mosaic Virus (ACMV) genome which contains heterologous DNA, said heterologous DNA comprising at least a fragment of a gene endogenous to a plant, wherein the fragment is of a size sufficient to induce silencing ~~and wherein said geminivirus silencing vector silences expression of the endogenous plant gene upon introduction into a plant cell.~~

45. (Previously presented) The vector according to claim 44, wherein said gene endogenous to a plant occurs naturally in the plant genome.

46. (Currently amended) A DNA construct comprising a Tomato Golden Mosaic Virus (TGMV) genome, wherein the DNA encoding the TGMV coat protein has been replaced in part or in total with heterologous DNA comprising at least a fragment of an endogenous plant gene and wherein the fragment is of a size sufficient to induce silencing.

47. (Previously presented) The vector according to claim 46, wherein said gene endogenous to a plant occurs naturally in the plant genome.

48. (Currently amended) A DNA construct comprising an African Cassava Mosaic Virus (ACMV) genome, wherein the DNA encoding the ACMV coat protein has been replaced in part or in total with heterologous DNA comprising at

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least a fragment of an endogenous plant gene and wherein the fragment is of a size sufficient to induce silencing.

49. (Previously presented) The vector according to claim 48, wherein said gene endogenous to a plant occurs naturally in the plant genome.

50. (Currently amended) A method of silencing the expression of an endogenous plant gene in a plant cell, comprising inoculating said plant cell with a geminivirus silencing vector comprising a geminivirus genome which contains heterologous DNA, said heterologous DNA comprising at least a fragment of a gene endogenous to a plant, wherein the fragment is of a size sufficient to induce silencing.

51. (Previously presented) The vector according to claim 50, wherein said gene endogenous to a plant occurs naturally in the plant genome.

52. (Currently amended) A method of silencing the expression of an endogenous plant gene in a plant cell, comprising inoculating said plant cell with a DNA construct comprising a geminivirus genome, wherein the DNA encoding the geminivirus coat protein has been replaced in part or in total with heterologous DNA comprising at least a fragment of an endogenous plant gene, wherein the fragment is of a size sufficient to induce silencing.

53. (Previously presented) The vector according to claim 52, wherein said gene endogenous to a plant occurs naturally in the plant genome.

54. (Currently amended) A method of systemically silencing expression of an endogenous plant gene in a plant, comprising inoculating said plant with a geminivirus silencing vector comprising a geminivirus genome which contains heterologous DNA, said heterologous DNA comprising at least a fragment of a gene endogenous to a plant, wherein the fragment is of a size sufficient to induce silencing.

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55. (Previously presented) The vector according to claim 54, wherein said gene endogenous to a plant occurs naturally in the plant genome.

56. (Currently amended) A method of systemically silencing expression of an endogenous plant gene in a plant, comprising inoculating said plant with a DNA construct comprising a geminivirus genome, wherein the DNA encoding the geminivirus coat protein has been replaced in part or in total with heterologous DNA comprising at least a fragment of an endogenous plant gene, wherein the fragment is of a size sufficient to induce silencing.

57. (Previously presented) The vector according to claim 56, wherein said gene endogenous to a plant occurs naturally in the plant genome.

58. The vector of claim 11, wherein expression of said heterologous DNA modifies a plant phenotypic trait that can be visually observed.

59-61. Canceled.

62. (Currently amended) A geminivirus silencing vector comprising a Tomato Golden Mosaic Virus (TGMV) genome comprising:

the TGMV AL1, AL2 and AL3 coding sequences operably associated with an AL1 promoter,

heterologous DNA, said heterologous DNA operably associated with a TGMV coat protein promoter and comprising at least a fragment of a gene endogenous to a plant that occurs naturally in the plant genome, wherein the fragment is of a size sufficient to induce silencing and wherein said heterologous DNA and said AL1, AL2 and AL3 coding sequences are bidirectionally transcribed from said geminivirus silencing vector, and

~~wherein said geminivirus silencing vector silences expression of the endogenous plant gene upon introduction into a plant cell.~~

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63. (Previously presented) A method of silencing expression of an endogenous plant gene in a plant cell, comprising inoculating said plant cell with a geminivirus silencing vector according to claim 42.

64. (Currently amended) A method of silencing the expression of an endogenous plant gene in a plant cell, comprising:

introducing a nucleic acid sequence encoding the geminivirus movement proteins into said plant cell; and

inoculating said plant cell with a geminivirus silencing vector comprising a geminivirus genome which contains heterologous DNA comprising at least a fragment of a gene endogenous to a plant, wherein the fragment is of a size sufficient to induce silencing.

65. (Previously presented) The method of claim 64, wherein said plant cell is a cell from a species of *Nicotiana* and said geminivirus silencing vector is a Tomato Golden Mosaic Virus (TGMV) silencing vector.